

Bridging Chips Market Forecasts to 2032 – Global Analysis By Type (PCI/PCIe Bridging Chips, I2C/SPI Bridging Chips, USB Bridging Chips, HDMI/Display Bridging Chips, SATA/SAS Bridging Chips, Ethernet Bridging Chips and Other Types), Function, Configuration, Technology, Application, End User and By Geography

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Abstracts

According to Statistics MRC, the Global Bridging Chips Market is accounted for \$1.7 billion in 2025 and is expected to reach \$5.7 billion by 2032 growing at a CAGR of 18.2% during the forecast period. Bridging chips are specialized semiconductor components that facilitate communication between different hardware interfaces or system architectures. They function as intermediaries, enabling seamless data transfer across varying protocols, such as PCIe, USB, and Ethernet. These chips optimize performance by managing signal conversion and ensuring compatibility between disparate electronic components. Commonly used in computing, networking, and embedded systems, bridging chips enhance connectivity, support efficient data exchange, and enable the integration of advanced functionalities within complex hardware environments.

According to the U.S. Department of Commerce, the semiconductor industry is projected to reach a value of \$1 trillion by 2030, with bridging chips playing a pivotal role in this expansion.

Market Dynamics:

Driver:

Growth in data centers and cloud computing

The expanding growth in data centers and cloud computing is driving demand for bridging chips, as businesses increasingly rely on high-speed data processing and connectivity solutions. With cloud-based services growing exponentially, bridging chips play a critical role in ensuring seamless communication between different hardware architectures. They facilitate efficient data transfer across servers, storage devices, and network components, enhancing system performance.

Restraint:

Variability in hardware standards across manufacturers

Variability in hardware standards across manufacturers poses a challenge to bridging chip adoption, as compatibility issues arise when integrating disparate systems. Different industry players employ proprietary architectures, requiring bridging chips to support multiple protocols for effective interoperability. This diversity in hardware specifications complicates design and increases production costs, slowing widespread adoption.

Opportunity:

Advancement in 5G and edge computing

The advancement of 5G and edge computing is opening new possibilities for bridging chips, as real-time data processing requires efficient interconnectivity between devices. With the proliferation of IoT and smart technologies, bridging chips enable seamless communication across distributed systems, optimizing response times. Their integration into mobile networks, embedded computing, and edge-based AI enhances overall connectivity, reducing latency in next-generation digital applications.

Threat:

Geopolitical tensions and chip shortages

Trade restrictions and semiconductor manufacturing constraints create uncertainties in availability and pricing, affecting business operations worldwide. Additionally, reliance on key suppliers concentrated in specific regions makes the market vulnerable to

disruptions. To mitigate these risks, companies are focusing on diversifying sourcing strategies and investing in localized chip fabrication to ensure stable supply chains.

Covid-19 Impact:

The pandemic affected the bridging chips market by disrupting semiconductor manufacturing and logistics, leading to temporary shortages and supply chain constraints. However increasing reliance on cloud computing and data-intensive applications during the crisis reinforces demand for high-performance connectivity solutions. The transition to remote work, online services, and digital collaboration accelerated the need for efficient bridging chips, ensuring system reliability and performance.

The PCI/PCIe bridging chips segment is expected to be the largest during the forecast period

The PCI/PCIe bridging chips segment is expected to account for the largest market share during the forecast period owing to its extensive adoption in computing, networking, and enterprise solutions. These bridging chips facilitate seamless integration between PCI-based peripherals and modern architectures, ensuring efficient data exchange and system interoperability. Their role in optimizing high-speed data transfers within data centers and embedded systems further reinforces their market dominance.

The protocol conversion segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the protocol conversion segment is predicted to witness the highest growth rate driven by the rising need for cross-platform connectivity solutions. Industries are increasingly utilizing protocol conversion chips to enable seamless communication between diverse interfaces such as USB, Ethernet, and Thunderbolt. These chips enhance compatibility in industrial automation, smart devices, and cloud computing, supporting efficient data handling across multiple systems.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share attributed to significant investments in cloud computing, semiconductor innovation, and high-performance computing solutions. The presence of leading

technology firms and extensive research in bridging chip development reinforces the region's leadership in the sector. Additionally, the expansion of data-driven applications continues to fuel market demand for advanced connectivity solutions.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR propelled by rapid advancements in high-speed computing and semiconductor manufacturing. Countries such as China, South Korea, and Taiwan are at the forefront of investment in chip fabrication and next-generation communication technologies. The growing adoption of 5G, AI-driven data processing, and smart automation is further accelerating market expansion in the region.

Key players in the market

Some of the key players in Bridging Chips Market include Analog Devices, Broadcom Inc., FTDI, Fujitsu, JMicron Technology, Marvell Technology, MaxLinear, MediaTek Inc., Microchip Technology, NXP Semiconductors, Realtek Semiconductor, Renesas Electronics, Silicon Labs, Silicon Motion, STMicroelectronics, Texas Instruments (TI) and Toshiba.

Key Developments:

In April 2025, MaxLinear introduced a new line of broadband access SoCs, supporting the latest DOCSIS 4.0 standard. These SoCs are designed to deliver multi-gigabit speeds to meet the growing demand for high-speed internet services.

In April 2025, FTDI launched a new series of USB-to-serial converter chips, offering enhanced data transfer rates and improved power efficiency. These chips are designed to meet the growing demand for reliable and fast data communication in industrial and consumer electronics.

In March 2025, Texas Instruments announced the expansion of its semiconductor manufacturing facility in Richardson, Texas, to increase production capacity. This expansion is part of TI's strategy to meet the growing demand for analog and embedded processing chips across various industries.

Types Covered:

PCI/PCIe Bridging Chips

I2C/SPI Bridging Chips

USB Bridging Chips

HDMI/Display Bridging Chips

SATA/SAS Bridging Chips

Ethernet Bridging Chips

Other Types

Functions Covered:

Protocol Conversion

Interface Bridging

Bandwidth Expansion

Signal Translation

Other Functions

Configurations Covered:

Single Chip Solutions

Multi-Chip Solutions

Technologies Covered:

Field-Programmable Gate Array (FPGA)-based

Application-Specific Integrated Circuit (ASIC)

Discrete Bridging Chips

System-on-Chip (SoC)

Applications Covered:

Consumer Electronics

Computing Devices

Infotainment Systems

Automation Equipment

Routers/Switches

Base Stations

Other Applications

End Users Covered:

Consumer Electronics Manufacturers

Telecommunication Service Providers

OEMs (Original Equipment Manufacturers)

Aftermarket

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

Contents

1 EXECUTIVE SUMMARY

2 PREFACE

- 2.1 Abstract
- 2.2 Stake Holders
- 2.3 Research Scope
- 2.4 Research Methodology
 - 2.4.1 Data Mining
 - 2.4.2 Data Analysis
 - 2.4.3 Data Validation
 - 2.4.4 Research Approach
- 2.5 Research Sources
 - 2.5.1 Primary Research Sources
 - 2.5.2 Secondary Research Sources
 - 2.5.3 Assumptions

3 MARKET TREND ANALYSIS

- 3.1 Introduction
- 3.2 Drivers
- 3.3 Restraints
- 3.4 Opportunities
- 3.5 Threats
- 3.6 Technology Analysis
- 3.7 Application Analysis
- 3.8 End User Analysis
- 3.9 Emerging Markets
- 3.10 Impact of Covid-19

4 PORTERS FIVE FORCE ANALYSIS

- 4.1 Bargaining power of suppliers
- 4.2 Bargaining power of buyers
- 4.3 Threat of substitutes
- 4.4 Threat of new entrants
- 4.5 Competitive rivalry

5 GLOBAL BRIDGING CHIPS MARKET, BY TYPE

- 5.1 Introduction
- 5.2 PCI/PCIe Bridging Chips
- 5.3 I2C/SPI Bridging Chips
- 5.4 USB Bridging Chips
- 5.5 HDMI/Display Bridging Chips
- 5.6 SATA/SAS Bridging Chips
- 5.7 Ethernet Bridging Chips
- 5.8 Other Types

6 GLOBAL BRIDGING CHIPS MARKET, BY FUNCTION

- 6.1 Introduction
- 6.2 Protocol Conversion
- 6.3 Interface Bridging
- 6.4 Bandwidth Expansion
- 6.5 Signal Translation
- 6.6 Other Functions

7 GLOBAL BRIDGING CHIPS MARKET, BY CONFIGURATION

- 7.1 Introduction
- 7.2 Single Chip Solutions
- 7.3 Multi-Chip Solutions

8 GLOBAL BRIDGING CHIPS MARKET, BY TECHNOLOGY

- 8.1 Introduction
- 8.2 Field-Programmable Gate Array (FPGA)-based
- 8.3 Application-Specific Integrated Circuit (ASIC)
- 8.4 Discrete Bridging Chips
- 8.5 System-on-Chip (SoC)

9 GLOBAL BRIDGING CHIPS MARKET, BY APPLICATION

- 9.1 Introduction
- 9.2 Consumer Electronics

- 9.3 Computing Devices
- 9.4 Infotainment Systems
- 9.5 Automation Equipment
- 9.6 Routers/Switches
- 9.7 Base Stations
- 9.8 Other Applications

10 GLOBAL BRIDGING CHIPS MARKET, BY END USER

- 10.1 Introduction
- 10.2 Consumer Electronics Manufacturers
- 10.3 Telecommunication Service Providers
- 10.4 OEMs (Original Equipment Manufacturers)
- 10.5 Aftermarket

11 GLOBAL BRIDGING CHIPS MARKET, BY GEOGRAPHY

- 11.1 Introduction
- 11.2 North America
 - 11.2.1 US
 - 11.2.2 Canada
 - 11.2.3 Mexico
- 11.3 Europe
 - 11.3.1 Germany
 - 11.3.2 UK
 - 11.3.3 Italy
 - 11.3.4 France
 - 11.3.5 Spain
 - 11.3.6 Rest of Europe
- 11.4 Asia Pacific
 - 11.4.1 Japan
 - 11.4.2 China
 - 11.4.3 India
 - 11.4.4 Australia
 - 11.4.5 New Zealand
 - 11.4.6 South Korea
 - 11.4.7 Rest of Asia Pacific
- 11.5 South America
 - 11.5.1 Argentina

- 11.5.2 Brazil
- 11.5.3 Chile
- 11.5.4 Rest of South America
- 11.6 Middle East & Africa
 - 11.6.1 Saudi Arabia
 - 11.6.2 UAE
 - 11.6.3 Qatar
 - 11.6.4 South Africa
 - 11.6.5 Rest of Middle East & Africa

12 KEY DEVELOPMENTS

- 12.1 Agreements, Partnerships, Collaborations and Joint Ventures
- 12.2 Acquisitions & Mergers
- 12.3 New Product Launch
- 12.4 Expansions
- 12.5 Other Key Strategies

13 COMPANY PROFILING

- 13.1 Analog Devices
- 13.2 Broadcom Inc.
- 13.3 FTDI
- 13.4 Fujitsu
- 13.5 JMicron Technology
- 13.6 Marvell Technology
- 13.7 MaxLinear
- 13.8 MediaTek Inc.
- 13.9 Microchip Technology
- 13.10 NXP Semiconductors
- 13.11 Realtek Semiconductor
- 13.12 Renesas Electronics
- 13.13 Silicon Labs
- 13.14 Silicon Motion
- 13.15 STMicroelectronics
- 13.16 Texas Instruments (TI)
- 13.17 Toshiba

List Of Tables

LIST OF TABLES

- 1 Global Bridging Chips Market Outlook, By Region (2024-2032) (\$MN)
- 2 Global Bridging Chips Market Outlook, By Type (2024-2032) (\$MN)
- 3 Global Bridging Chips Market Outlook, By PCI/PCIe Bridging Chips (2024-2032) (\$MN)
- 4 Global Bridging Chips Market Outlook, By I2C/SPI Bridging Chips (2024-2032) (\$MN)
- 5 Global Bridging Chips Market Outlook, By USB Bridging Chips (2024-2032) (\$MN)
- 6 Global Bridging Chips Market Outlook, By HDMI/Display Bridging Chips (2024-2032) (\$MN)
- 7 Global Bridging Chips Market Outlook, By SATA/SAS Bridging Chips (2024-2032) (\$MN)
- 8 Global Bridging Chips Market Outlook, By Ethernet Bridging Chips (2024-2032) (\$MN)
- 9 Global Bridging Chips Market Outlook, By Other Types (2024-2032) (\$MN)
- 10 Global Bridging Chips Market Outlook, By Function (2024-2032) (\$MN)
- 11 Global Bridging Chips Market Outlook, By Protocol Conversion (2024-2032) (\$MN)
- 12 Global Bridging Chips Market Outlook, By Interface Bridging (2024-2032) (\$MN)
- 13 Global Bridging Chips Market Outlook, By Bandwidth Expansion (2024-2032) (\$MN)
- 14 Global Bridging Chips Market Outlook, By Signal Translation (2024-2032) (\$MN)
- 15 Global Bridging Chips Market Outlook, By Other Functions (2024-2032) (\$MN)
- 16 Global Bridging Chips Market Outlook, By Configuration (2024-2032) (\$MN)
- 17 Global Bridging Chips Market Outlook, By Single Chip Solutions (2024-2032) (\$MN)
- 18 Global Bridging Chips Market Outlook, By Multi-Chip Solutions (2024-2032) (\$MN)
- 19 Global Bridging Chips Market Outlook, By Technology (2024-2032) (\$MN)
- 20 Global Bridging Chips Market Outlook, By Field-Programmable Gate Array (FPGA)-based (2024-2032) (\$MN)
- 21 Global Bridging Chips Market Outlook, By Application-Specific Integrated Circuit (ASIC) (2024-2032) (\$MN)
- 22 Global Bridging Chips Market Outlook, By Discrete Bridging Chips (2024-2032) (\$MN)
- 23 Global Bridging Chips Market Outlook, By System-on-Chip (SoC) (2024-2032) (\$MN)
- 24 Global Bridging Chips Market Outlook, By Application (2024-2032) (\$MN)
- 25 Global Bridging Chips Market Outlook, By Consumer Electronics (2024-2032) (\$MN)
- 26 Global Bridging Chips Market Outlook, By Computing Devices (2024-2032) (\$MN)
- 27 Global Bridging Chips Market Outlook, By Infotainment Systems (2024-2032) (\$MN)
- 28 Global Bridging Chips Market Outlook, By Automation Equipment (2024-2032) (\$MN)

- 29 Global Bridging Chips Market Outlook, By Routers/Switches (2024-2032) (\$MN)
- 30 Global Bridging Chips Market Outlook, By Base Stations (2024-2032) (\$MN)
- 31 Global Bridging Chips Market Outlook, By Other Applications (2024-2032) (\$MN)
- 32 Global Bridging Chips Market Outlook, By End User (2024-2032) (\$MN)
- 33 Global Bridging Chips Market Outlook, By Consumer Electronics Manufacturers (2024-2032) (\$MN)
- 34 Global Bridging Chips Market Outlook, By Telecommunication Service Providers (2024-2032) (\$MN)
- 35 Global Bridging Chips Market Outlook, By OEMs (Original Equipment Manufacturers) (2024-2032) (\$MN)
- 36 Global Bridging Chips Market Outlook, By Aftermarket (2024-2032) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

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